Monetary Policy in a Changing World

By Thomas M. Hoenig

As you know, many discussions of monetary policy tend to get rather myopic, focusing extensively on the latest data released and their implications for what the FOMC is likely to do at its next meeting. While interesting and important, the downside in such a short-run perspective is that we too often see the trees but not the forest. While we focus on data in great detail, we fail to observe fundamental changes in the economic environment in which monetary policy operates.

This evening, I would like to take a somewhat different tack and offer a longer term perspective on some current and future challenges facing monetary policy. More specifically, I would like to discuss the broad issue of how monetary policy might cope with ongoing changes in the structure of the economy and financial markets.

Generally speaking, these changes can affect monetary policy in at least a couple of ways. First, they can complicate the process of deciding when a policy action should be taken—that is, when the FOMC should change the federal funds rate target. Second, some of these structural changes may affect the implementation of monetary policy by requiring changes in operating procedures or the institutional framework of policy.

In this regard, there are three developments I will focus on here this evening. The first is the apparent change in the structure of the inflation process in recent years that has made it more difficult to produce reliable inflation forecasts. This development has led to some subtle but significant changes in monetary policy decision-making.

A second issue is the impact of a shrinking supply of Treasury securities on monetary policy. When the public thinks about surpluses and deficit reduction, I suspect that there is little consideration of their potential impact on monetary policy. Yet, the reduced supply of Treasuries has, for example, already affected yield spreads and the usefulness of some financial market data as indicators for monetary policy and, going forward, could affect how the Fed implements policy.

The third topic is the more distant prospect that the spread of e-money could undermine the role of central banks in conducting monetary policy. While certainly not something

Mr. Hoenig, president of the bank, gave this speech at the September meeting of the Money Marketeers in New York City. This speech is on the bank's web site at ***www.kc.frb.org****.*

that currently causes sleepless nights for central bankers, the widespread adoption of e-money could ultimately affect the implementation of monetary policy in a very fundamental way by reducing or even eliminating the demand for central bank money.

Understanding the inflation process

Let me begin by examining how changes in the inflation process over the past few years have affected monetary policy decision-making. As the goal of price stability has become a central focus of monetary policy over the past two decades, the role of inflation forecasts also has taken on increased importance. At the same time, however, both traditional indicators of inflationary pressures and formal models of the inflation process have become less reliable.

A good example is the diminished role of monetary aggregates. In the United States and around the world, there has been less reliance on monetary aggregates either as targets or information variables because short-run relationships between money and inflation appear to have broken down in recent years.

Moreover, alternative analytical approaches, such as natural rate and output gap models, have fared no better. Indeed, it may be safe to say that we still are working to improve our understanding of the factors behind the favorable inflation performance of the last few years. In particular, it is extremely difficult to sort out the relative contributions of improved productivity vis-à-vis temporary supply factors, such as lower import prices or reduced health care cost inflation. And going forward, there are considerable uncertainty and debate over whether this favorable inflation performance is likely to continue.

I believe that these events have had some subtle but important effects on monetary policy decision-making over the past several years. One implication is that there is increasing merit being given to an approach that relies on a broad set of economic indicators to gauge inflationary pressures. Had the FOMC focused exclusively on money growth or on measures of labor market tightness, or relied too heavily on outdated estimates of potential output, I believe that we would have likely seen less favorable economic performance over the past few years.

Another important implication for policy is that, in the face of increased uncertainty about the structure of the economy, it is more difficult to be preemptive in policy actions. Consequently, there is less reliance on forecasts of inflation to guide policy, and a greater inclination to wait for hard evidence of increased inflationary pressures or expectations before acting. This explains to an important extent the move to somewhat smaller and more gradual steps early in a policy cycle until a trend in price movements is more apparent. However, it also implies the need for a more aggressive response when the uncertainty dissipates and evidence accumulates that the inflation trajectory is changing.

Debt reduction and monetary policy

A second structural change with potential implications for monetary policy is the ongoing reduction in the supply of Treasury securities. This development has altered the information content of financial market indicators and, if it continues, could also bring about significant changes in the way the Fed implements monetary policy.

Financial market indicators provide useful information to policymakers in at least two ways. First, a considerable amount of research that we and others have conducted in recent years suggests that the yield curve may help forecast economic activity. In particular, a flattening of the Treasury yield curve has fre-

quently been associated with a slowdown in economic activity.

Second, financial market indicators may also provide information about changing liquidity conditions or assessments of risk. For example, in the late summer and fall of 1998, we saw indications of heightened risk premia and lower market liquidity associated with the Russian and developing country financial crisis.

Over the past several months, as actual and prospective reductions in the supply of Treasury securities have weighed more heavily on markets, many of these financial market indicators have become increasingly difficult to interpret. For example, how much of the flattening of the Treasury yield curve this year was driven by expectations of slower growth or reduced inflationary expectations and how much by supply considerations? Similarly, are increased spreads of private securities over Treasuries due to changing perceptions of risk or to the reduced supply of Treasury securities? And, are heightened bid/ask spreads a reflection of temporary episodes of financial market fragility or, rather, an indication of a longer term reduction in market liquidity caused by the cutback in supply of Treasuries?

These issues are not merely academic concerns. Indeed, some analysts have suggested that the Fed delayed its unwinding of the easing of policy that occurred in the fall of 1998 because of continuing concern over the condition of financial markets as reflected in these financial market indicators. Therefore, some of these same analysts are concerned that policy remained too easy for too long with potential implications for inflationary pressures. Going forward, if projections of further reductions in Treasury supply are accurate, these indicators may become of limited value to policymakers either in forecasting economic activity or in gauging the condition of financial markets.

If the amount of Treasury securities continues to decline, there may also be significant implications for the structure of the Fed's balance sheet and for how monetary policy is implemented. Currently, Treasury securities are the principal asset held by the Fed. Outright purchases of Treasuries provide a long-term source of reserves that supports the secular growth in currency demand. If there is an inadequate supply of Treasury securities, the Fed will need to turn to other assets to perform these functions.

What assets might the Fed use? In the search for possible alternatives, both history and the experience of other countries may provide some guidance. If we look back to the early days of the Federal Reserve System, we find that the discount window played a much more important role than it does today. Discount window lending was an important source of reserves, and discounted trade bills also served as collateral for outstanding currency. Moreover, open market operations in private securities were used in reserve management. These practices reflected a different time and set of circumstances including legal restrictions in the Federal Reserve Act, existing views of the role of the central bank, and the relatively small size of the government securities market. However, they illustrate that the central bank did and can again adopt new procedures to meet its changing environment.

Insight may also be obtained by looking at practices of other major central banks. Many countries have had to develop monetary policy operating procedures without large government securities markets. Historically, several of these countries relied heavily on discount or lending facilities as the major tool of reserve management and as a long-term source of reserves. More recently the trend has been toward the use of large-scale repo operations in a broad range of public and private securities. Good examples are the changes in operating procedures at the Bank of England in

recent years and the institutional structure of ECB monetary policy operations.

These comparisons, while not forecasting the future, suggest that if there is a continuing reduction in the supply of Treasury securities, the Fed nevertheless has options. These include outright purchase of non-Treasury securities, large-scale repo operations in non-Treasury securities, and increased discount window lending to depository institutions. The exact scope for these operations, of course, will depend on the Fed's current and prospective legislative authority.

In the end, the important point of the impending changes may be that, while the Fed's ability to implement policy via a funds rate target would likely not be dramatically affected, there could be important effects on Desk operations as well as implications for financial markets and institutions.

E-money and monetary policy

Thus far, I have focused on structural changes in the economy and financial markets that have had implications for monetary policy or might impact policy in the foreseeable future. I would like to close by looking much further ahead to see how the evolution of the payments system might affect monetary policy. In this instance, the focus is on the widespread use of e-money and how some are suggesting that it could, theoretically, undermine the very foundations of monetary policy.

This issue was raised recently in a couple of provocative papers, one by Mervyn King presented at the Kansas City Fed's 1999 Jackson Hole symposium and another by Benjamin Friedman. Both speculate that the widespread adoption of privately issued e-money could have far-reaching implications for central banks.

Their arguments can be illustrated in a simple model of the demand for and supply of central bank money, where central bank money consists of currency held by the public and reserve or settlement balances held at the central bank. In this framework, the central bank implements policy by altering the supply of central bank money to affect the overnight interest rate.

This analysis presupposes the existence of a demand for central bank money, and it is this assumption that is called into question by King and Friedman. Specifically, they suggest that the widespread use of e-money could cause both the demand for currency and the demand for settlement balances to disappear. If so, it would be extremely difficult for the central bank to operate by controlling the supply of something for which there is no demand.

We are obviously a very long way from this situation currently. Indeed, currency, which makes up the dominant share of central bank money, is growing rapidly. Its growth is being driven both by increased domestic demand and by greater international demand for dollars. At the same time, however, the demand for reserve and settlement balances has been declining in recent years as a result of several factors including lower reserve requirements, increased use of sweep accounts, and improvements in payments practices.

The scenario envisioned by King and Friedman would clearly require some radical changes in existing payments practices by households and firms and by financial institutions. Smart cards or similar payments vehicles would need to replace the use of currency. Moreover, depository institutions would have to settle directly with each other rather than with the central bank.

In contrast to this view, papers presented at a recent World Bank conference by Charles Freedman, Charles Goodhart, and Michael

Woodford suggest that the outlook for central banks in a world of e-money may not be quite so bleak. Indeed, these authors suggest there are both practical and theoretical reasons for believing that the demand for central bank money will continue to exist even as e-money becomes more popular.

First, the history of payments systems suggests that new payments methods do not completely replace old ones because the old methods may continue to have valuable and unique features. Thus, for example, e-money is unlikely to completely eliminate currency if users value currency's anonymity.

Second, in the unlikely event that depository institutions are able to agree to a private system of final settlement, legal restrictions requiring central bank settlement could be imposed. Moreover, to the extent that the central bank provides settlement services for the government, the need for the private sector to transact with the government would also create a demand for central bank balances.

Finally, as Woodford points out, even if the demand for central bank money truly disappears, this may not be the end of the story. The central bank could continue to influence short-term interest rates by directly transacting in an asset, such as overnight loans, for which there continues to be a demand. Thus, by establishing prices at which it would buy and sell this asset, the central bank could continue to set a reference short-term interest rate. Indeed, such a framework may be a natural evolution of corridor systems of interest rate management that have become popular among a growing number of central banks.

Opinions obviously differ as to the time frame or even the likelihood that e-money could have a significant impact on monetary policy. For example, Europeans appear to have greater concerns than we do, in part, perhaps because the development of e-money is further along in Europe. It is worth observing, however, that even short of a worst-case scenario, reserve management operations could be affected by e-money to the extent that the demand for or supply of reserves becomes more difficult to forecast.

Concluding observations

Let me conclude my discussion with some general observations about monetary policy in a changing world. The theme of my remarks this evening is that, while monetary policy is always challenging, it is especially so when there are important structural changes occurring in the economy or in financial markets.

Perhaps the biggest difficulty policymakers face is in recognizing that fundamental changes are occurring. Many times it is difficult to distinguish structural changes from normal cyclical changes within a time frame that is useful for short-run policy decisions. An additional factor that may inhibit our ability to recognize structural change is a natural skepticism among economists about the importance of these changes. After all, our empirical models of the economy rely heavily on the existence of stable patterns of behavior over long periods of time.

It is also important to recognize that structural changes come in different forms and have different implications for monetary policy. Some changes have their principal impact on short-run policy decisions as to where to set the federal funds rate target. Other changes may have deeper effects on the institutional structure of monetary policy and, indeed, may require fundamental changes in how monetary policy is implemented. Observing these changes, understanding their meaning and implications, and distinguishing them from one another are every bit as important as forecasting next quarter's GDP, and every bit as difficult.